

REMARKS

Claims 1-34 are pending in this Application and stand finally rejected. New Claims 35-39 has been added for consideration by the Examiner. Support for new Claims 35-39 can be found, for example, in Figure 1, Page 11, Line 30, Examples 18-24, among other portions of the instant application. Applicants respectfully request reconsideration and allowance of the instant application.

The rejection of Claims 1-34 under 35 U.S.C. 103(a) as being unpatentable over Carey et al. (USPN 3,154,504) taken with Wyceh (USPN 4,923,902) and Kagoshima et al. (U.S.P.N. 5,274,006), is respectfully traversed.

Carey and Kagoshima contain conflicting teachings and cannot be properly combined. Wyceh and Kagoshima also contain conflicting teachings and cannot be properly combined. Applicants, therefore, respectfully submit that a combination of Carey, Kagoshima and Wyceh is contrary to M.P.E.P. 2143. Applicants respectfully request a discussion on how or why these conflicting teachings are overcome in order to arrive at the requisite motivation to combine these references.

Carey et al. (U.S.P.N. 3,154,504) discloses a method for making epoxy foam in which the use of elevated temperatures is avoided, and cured without recourse to chemical blowing agents, e.g. refer to Col. 1, Lines 45-57 and Col. 4, Lines 60-75 of Cary. Cary does not employ an exothermic reaction for expanding a blowing agent; but rather, Cary requires using a superatmospheric pressure that when released causes foaming to occur. While Cary does disclose phosphoric acid in a list of compounds, Cary does not disclose selecting phosphoric acid from the list for exothermically reacting the selected acid with epoxy compounds in order to expand an encapsulated blowing agent. Indeed Col. 4, Lines 60-62 of Carey teaches adding water which is the opposite of instant Claim 2 (see also Col. 4, Lines 50-55 of Cary which teach away from the claimed fast acting curing agent).

Moreover, Carey does not disclose a two part foam system. The absence of such a two part foam system in the primary references is an indicia of unobviousness. It is noted that the Office Action lacks any explanation as to how or why a skilled person in this art would alter/modify the superatmospheric process of Carey in order to arrive at a two part system. The Office Action also lacks any motivation as to how or why one of ordinary skill would modify Carey to be a two part foam system since such is contrary to Carey's process (e.g., refer to M.P.E.P 2143.01).

Kagoshima et al. discloses a single-phase admixture that foams after being exposed to an external source of heat, e.g., refer to Col. 3, Lines 14-26 of Kagoshima and M.P.E.P. 2143.02. Hence, Kagoshima is not analogous to the claimed A and B side precursors which employs an exothermic reaction that occurs upon mixing. Kagoshima achieves an exothermic reaction by external heating and melting his composition thereby permitting molten curing agents to interact with the molten composition, e.g., refer to Col. 2, Lines 35-44; Col. 3, Lines 14-26 and 38-47 and 53-66; and Col. 6, Lines 35-40 of Kagoshima. That is, Kagoshima fails to disclose or teach an exothermic reaction arising while mixing A and B side precursors, using the exothermic reaction to expand an encapsulated blowing agent or dispensing a foam product (e.g., into a cavity).

Moreover, Carey and Kagoshima cannot be properly combined. Carey expressly discloses avoiding the external heating that is required by Kagoshima. Further, Kagoshima also employs the chemical blowing agents that Carey teaches to avoid. When these references are considered as a whole, and not as redacted sections, a skilled person in this art would lack the requisite motivation to combine Carey and Kagoshima.

Wyceh (U.S.P.N. 4,923,902) fails to remedy the deficiencies of Carey or Kagoshima. Wyceh does not employ a hydrogen donor comprising at least one substantially water free Lewis acid for generating an exothermic reaction, e.g., refer to Col. 8, Lines 5-17 of Wyceh. Indeed the curing agents of Wyceh are basic curing agents, e.g., amines, and, therefore, teach away from an acid cure system. A skilled person in this art would not believe that basic curing agents are relevant to the claimed invention that employs an acid source; but rather that Wyceh teaches away from using the claimed acid source.

Wyceh does not relate to dispensing a foam (e.g., into a cavity). That is, Wyceh packs a dough (not a foam) into a cavity which thereafter expands (i.e., without being dispensed – see also Col. 7, Lines 60-65 of Wyceh). With respect to Claim 27, Wyceh does not teach the claimed B side (e.g., a precursor comprising an acid and encapsulated blowing agent) since Wyceh teaches combining the blowing agent with the A-side (e.g., refer to Col., 5 Lines 49-52 of Wyceh). With respect to Claim 21, Wyceh fails to teach foam precursors having the claimed ratio of A-side to B-side (e.g., refer to Col. 8, Lines 40-47 wherein Wyceh employs an A-side to B-side ratio of 4:1 to 5:1).

The Wyceh reference is similar to Kagoshima in that they do not dispense a foam but rather foam a foam in-situ from a previously deposited precursor. That is, Wyceh locates a “reactive dough” in a cavity so that the dough can eventually react to form a foam (e.g., refer to Col. 3, Lines 55-65 of Wyceh). Note also Col. 5, Line 65 through Col. 6, Line 5 of Wyceh which teach away from a “runny” or dispensable material.

Moreover, Kagoshima and Wyceh cannot be properly combined. Wyceh expressly claims the absence of heat when producing a foam, e.g., refer to Col. 12, Lines 29-31 of Wyceh, whereas applying heat from an external source is required by Wyceh.

While it could be argued that Wyceh teaches using a Part A and Part B such is contrary to the disclosure of Carey that employs a superatmospheric process, or Kagoshima that clearly teaches the requirement of a single phase heat/hot melt activated system. That is, there is no identified problem associated with premature exothermic reaction since Kagoshima expressly requires an externally heat activated curing system and Carey employs a superatmospheric process wherein the use of elevated temperatures is avoided. Applicants, therefore, respectfully submit that Wyceh is not combinable with Kagoshima and/or Carey and, if combined, cannot render the claimed invention obvious (e.g., refer to M.P.E.P. 2143.01, Section 2, Where The Teachings Of The Prior Art Conflict).

It is important to note that none of the applied references alone or in combination disclose that an exothermic reaction occurs during mixing, that the reacting mixture generates heat sufficient to expand an encapsulated blowing agent and dispensing a foam obtained from the exothermic reaction.

Moreover, none of the cited references disclose other aspects of the invention such as using a containment device, at least one polyol, a foam composite or laminate, polyvinyl alcohol, phenoxy resin, the dispensing system of Figure 2, among other aspects of the invention. Applicants respectfully request a more detailed discussion of how the cited references are applied against the dependent claims (e.g., Claims 8, 9, 10, 11, 12, 13, among other dependent claims).

For these reasons, Applicants respectfully submit that none of the references of record can be properly combined to support a prima facie case of obviousness. Should the Office continue the instant rejection, Applicants respectfully request an explanation of what is the motivation to combine the applied references and how the references are applied to each of the pending claims.

The instant application claims benefit under 35 U.S.C. 120 of prior filed parent U.S. Patent Application Serial Nos. 09/081,967 and 09/197,124. Applicants respectfully request consideration of these applications as well as the information cited on the Information Disclosure Statements filed therein.

Should there be any fee due in connection with this Application, please charge the same to Deposit Account No. 15-0680 (Orscheln Management Company). Should the Examiner deem that any further action on the part of

Applicant would advance prosecution, the Examiner is invited to telephone Applicants' attorney.

Respectfully Submitted,



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